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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,721	03/22/2005	Hee-Chan Kim	1508-3 PCT/US	6970

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EXAMINER	
RIPA, BRYAN D	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
08/12/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/528,721	KIM ET AL.	
	Examiner	Art Unit	
	BRYAN D. RIPA	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-12,14 and 17-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10-12,14 and 17-20* is/are allowed.

6)☒ Claim(s) *21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Response to Amendment

In response to the amendment received on June 12, 2009:

- all prior claim objections are withdrawn in light of the amendments to the claims
- all prior art rejections are withdrawn in light of the amendments to the claims

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Bartlett et al., (WIPO Pub. No. 99/00536) (hereinafter referred to as "BARTLETT").

Regarding claim 21, BARTLETT teaches a mesoporous platinum electrode in which the mesoporous platinum electrode comprises an electrode (see page 8 lines 23-26 teaching the deposition of the film on an electrode; see also page 15 line 28-page 16 line 14 teaching among other things the use of the film on an electrode) and a mesoporous platinum layer covering the surface thereof (see page 4 lines 13-20 teaching the deposition of platinum species; see also page 10 lines 20-26 teaching the mesoporous layer having a pore diameter between 1.3 nm and 30 nm; see also examples 1-3 on page 17 teaching the deposition of a mesoporous platinum layer onto a gold electrode) and in which the mesoporous platinum electrode is a non-enzymatic electrode without any enzyme immobilized thereon (see finished product resulting from the examples 1-3 on page 17).

Please note, as discussed in the earlier office action, the examiner is interpreting the phrase mesoporous as requiring pores with a diameter between 2 nm and 50 nm.

Additionally, the examiner is interpreting the phrases “for detecting glucose” and “that reacts with the glucose to produce an electric signal” to be phrases of intended use. See MPEP 2111.02(II).

The cited prior art teaches all of the positively recited structure of the claimed apparatus. The Courts have held that a statement of intended use in an apparatus claim fails to distinguish over a prior art apparatus. See *In re Sinex*, 309 F.2d 488, 492, 135 USPQ 302, 305 (CCPA 1962). Also, the Courts have held that the manner of operating an apparatus does not differentiate an apparatus claim from the prior art, if the prior art apparatus teaches all of the structural limitations of the claim. See *Ex Parte*

Masham, 2 USPQ2d 1647 (BPAI 1987). Finally, the Courts have held that apparatus claims must be structurally distinguishable from the prior art in terms of structure, not function. See *In re Danley*, 120 USPQ 528, 531 (CCPA 1959); and *Hewlett-Packard Co. V. Bausch and Lomb, Inc.*, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (see MPEP §§ 2114 and 2173.05(g)).

Therefore, because BARTLETT teaches all of the positively recited structural elements of claimed apparatus, BARTLETT anticipates the claim.

Allowable Subject Matter

2. Claims 10-12, 14 and 17-20 are allowed. The following is an examiner's statement of reasons for allowance:

BARTLETT, Marincic et al. "Electrochemical Glucose Oxidation on a Platinized Platinum Electrode in Krebs-Ringer Solution" J. Electrochem. Soc.: Electrochemical Science and Technology 126 (1), 43–49 (1979) (hereinafter referred to as "MARINCIC"), and Evans et al. "Detection of Hydrogen Peroxide at Mesoporous Platinum Microelectrodes" Anal. Chem. 74, 1322–1326 (2002) (hereinafter referred to as "EVANS") are the most relevant art.

The prior art fails to teach a method of detecting glucose as claimed wherein a mesoporous platinum electrode without an immobilized enzyme is used

More specifically, while BARTLETT teaches the formation of a mesoporous platinum electrode (see discussion above with respect to BARTLETT), BARTLETT does

not teach the method of its use for the detection of glucose without the use of an enzyme.

Also, MARINCIC while teaching a method for the detection of glucose using a platinum electrode without the use of an enzyme (see page 44), MARINCIC does not teach the platinum electrode having a mesoporous platinum layer.

Furthermore, EVANS does not teach a method of using a mesoporous platinum electrode without having an enzyme immobilized thereon and would not lead one of ordinary skill in the art to do so.

Therefore, it is the examiner's opinion that the cited prior art neither teaches nor fairly suggests the use of platinum mesoporous layer covering the surface of an electrode for the detection of glucose without any enzyme being immobilized thereon.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments, see pages 5-7, filed on June 12, 2006, with respect to claims 10-12, 14 and 17-20 have been fully considered and are persuasive. Consequently, the rejection of December 12, 2008 has been withdrawn.

More specifically, the examiner agrees that on the basis of the cited prior art references as discussed above, one of ordinary skill in the art would not have been led to use a mesoporous platinum electrode in a method as claimed for detecting glucose without the use of enzyme.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN D. RIPA whose telephone number is 571-270-

7875. The examiner can normally be reached on Monday to Friday, 9:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexa Neckel can be reached on 571-272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harry D Wilkins, III/
Primary Examiner, Art Unit 1795

/B. D. R./
Examiner, Art Unit 1795